Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Federal-State Joint Board on	)	CC Docket No. 96-45
Universal Service	)	

Comments of the Library of Michigan

April 12, 1996

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Executive Summary

On March 8, 1996 the Federal Communications Commission (FCC) issued a Notice of Proposed Rulemaking and Order Establishing Joint Board (Notice) to implement the Congressional directives set out in Section 254 of the Communications Act of 1934, as amended by the Telecommunications Act of 1996. The FCC initiated this rulemaking to do the following: (1) define the services that will be supported by Federal universal service support mechanisms; (2) define those support mechanisms; and (3) otherwise recommend changes to the FCC's regulations to implement the universal service directives of the 1996 Act. This is a summary of the comments of the Library of Michigan, a state library agency (LM).

> *As the country engages in discussion of how to develop a national information infrastructure and a "national information superhighway," it is hard to imagine a more accessible and available "on-ramp" to that highway than the local library. Libraries exist in communities, in schools, on college campuses and in businesses large and small. The library's tradition of promoting access to information resources and assisting citizens in navigating through the complexities of information presentation is long-standing and adapts well to the new environment.*
> - Action Plan For Michigan Libraries, 1994

LM recommends a list of advanced telecommunication services to be included in the definition of essential services. LM recommends that with the adoption of the list of advanced telecommunications services mentioned in our comments, all local exchange service providers be required to make available to all its customers at affordable prices all of these essential telecommunications services.

LM recommends that the funds should be distributed on a competitively neutral basis based on easy to complete uniform accounting information. All companies should be required to provide the data in the same manner. The data should be electronically submitted, stored and made publicly available.

LM recommends that universal service funds should be collected equally from all telecommunications service providers as defined by the Act based on gross revenues. No exceptions should be made. The charges should be computed as a flat rate and billed on a monthly basis and published in electronic format by the FCC.

LM recommends that the average cost to provide the service should be made publicly available and the rates being charges for the service should be published. The discounted rate should need no justification other than a signed agreement between all parties attesting to the discount and quantity. The same terms, conditions and prices should also be made available to all other schools, libraries and healthcare institutions in the provider's service area so they too can take advantage of the services to advance the infrastructure for the benefit of the public.

LM recommends support for the purchase of universal service fund-supported telecommunications services from non-profit technology cooperatives who may be better able to provide schools, hospitals and libraries with a full complement of services.

States and the FCC should monitor all geographic areas and monitor what services are provided or not provided. Consumers, including schools, hospitals and libraries should have input as to what

is needed. Additional explicit cost based support should be made available to providers to encourage development.

LM would further propose that any mechanism designed to improve the delivery of advanced telecommunication services to schools, hospitals and libraries be implemented as expeditiously as possible. A review schedule and process should be developed to allow changing technologies and service capabilities to be reflected in universal service policies.

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Introduction:

On March 8, 1996 the Federal Communications Commission (FCC) issued a Notice of Proposed Rulemaking and Order Establishing Joint Board (Notice) to implement the Congressional directives set out in Section 254 of the Communications Act of 1934, as amended by the Telecommunications Act of 1996. The FCC initiated this rulemaking to do the following: (1) define the services that will be supported by Federal universal service support mechanisms; (2) define those support mechanisms; and (3) otherwise recommend changes to the FCC's regulations to implement the universal service directives of the 1996 Act. The FCC has requested comments to be filed by April 8, 1996. The following are the comments of the Library of Michigan, a state library agency (LM). Due to the limited time allowed to respond to the notice references will be made to other sources of standards, criteria and background. Copies of some referenced materials are attached and others will be made available upon request.

Background:

The 1996 Act requires the FCC to "institute and refer to a Federal-State Joint Board under section 410(c) a proceeding to recommend changes to any of its regulations in order to implement sections 214(e), including the definition of the services that are supported by Federal universal service support mechanisms and a specific timetable for completion of such recommendations." The Joint

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Board and the FCC are to base the policies on the following principles:

(1) QUALITY AND RATES.--Quality services should be available at just, reasonable, and affordable rates. (Act @ 254(b)(1) & 254 (I))

(2) ACCESS TO ADVANCED SERVICES.--Access to advanced telecommunications and information services should be provided in all regions of the Nation. (Act @ 254(b)(2) & 254(c)(3))

(3) ACCESS IN RURAL AND HIGH COST AREAS.--Consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas. (Act @ 254 (b)(3))

(4) EQUITABLE AND NONDISCRIMINATORY CONTRIBUTIONS.-- All providers of telecommunications services should make an equitable and nondiscriminatory contribution to the preservation and advancement of universal service. (Act @ 254(b)(4) & 254(d))

(5) SPECIFIC AND PREDICTABLE SUPPORT MECHANISMS.-- There should be specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service. (Act @ 254(b)(5))

(6) ACCESS TO ADVANCED TELECOMMUNICATIONS SERVICES FOR SCHOOLS, HEALTH CARE, AND LIBRARIES.-- Elementary and secondary schools and classrooms, health care providers, and libraries should have access to advanced telecommunications services as described in subsection (h). (Act @ 254(c)(3) & 254(h)(2)(B))

(7) ADDITIONAL PRINCIPLES.--Such other principles as the Joint Board and the FCC determine are necessary and appropriate for the protection of the public interest, convenience, and necessity and are consistent with this Act. (Act @ 254(c)(3))

Summary of Comments - Library Impact:
Changes to the existing federal support mechanisms should be consistent with the new Telecommunications Act of 1996. The new Act requires additional funding for schools, hospitals and libraries, and new national service principles. This is an unprecedented opportunity to ensure the provision of advanced telecommunications services to the citizens of Michigan via their schools and libraries.

Michigan's libraries have struggled over the last ten 15 years to provide library users access to an increasing array of electronic services and technologies -- often within the constructs of expensive and/or unavailable telecommunications services. 344 of Michigan's 382 public libraries have a telefacsimile machine, 216 report library automation systems and only 158 libraries report access to the Internet. Of this 158 only 60 report connectivity of direct 56KB or better, the rest rely on dial

access via Michigan's shared dial-in network operated by Merit.

Since 1992 the Library of Michigan has focused its federally funded Library Services and Construction Act competitive grant program on building the technology infrastructure within our libraries. $9.8 million has been directed to automating our public libraries and to introducing new technologies such as CD-ROM networking. In the last two years we have provided grants in excess of $3.8 million in direct support of projects connecting libraries to the Internet. While these federal dollars have made important contributions, we will not be able to meet all library connectivity needs through this modest program. The significance of these early connectivity projects is important to understand however, it is through the success of these early projects that we can demonstrate the tremendous value library connectivity has for local communities.

In 1995, as part of a comprehensive program in support of library technology, LM introduced the Internet Training Center program. Seven of our fifteen public library cooperatives were awarded grants and have established a total of nine centers thus far. These centers are located throughout the state from suburban Detroit to Iron Mountain in the Upper Peninsula. All of the centers have achieved significant success in training library staff, trustees, the public and the education community and serve as important community resources.

As a result of an original $100,000 grant to the MidPeninsula Library Cooperative in Iron Mountain, the Cooperative was able to attract an additional grant from the Rural Datafication program through Merit. This synergistic combination of support, coupled with additional assistance from the local community has brought a MichNet dial access node, an Internet Training Center and a community networking initiative called Walden III to the Iron Mountain, Michigan area. Soon to be deployed will be a test of the delivery of electronic information via a kiosk offering direct public access beyond the walls of the sponsoring library. Libraries are clearly involved in innovative uses of telecommunications technology that have significant impact on local communities. The reliance on grant programs, however, will not deploy these technologies quickly enough nor will it assure their continued use in libraries without the benefits associated with inclusion in universal service mechanisms.

This Notice lacks specific detailed rules with cost and price impact by state. LM would recommend that a further Notice be issued to adopt specific detailed rules together with information by state on what the specific rules impact would be.

Goals and Principles of Universal Service Support Mechanisms:
The FCC is inviting comment on how each of the seven principles set out here should influence the policies on universal service.

The FCC seeks comment on how the FCC can assess whether quality services are being made available. In particular, the FCC is seeking comment on the utility of performance-based measurements to evaluate the success in reaching this Congressional objective. The FCC seeks comment on whether there are appropriate measures that could help assess whether "affordable" service is being provided to all Americans.

Comments:
LM recommends the use of the National Regulatory Research Institute (NRRI) model that was presented at the NARUC Summer 1995 meeting for a service quality framework. This framework includes the parameters of the following communications functions:

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-technical sales planning
-provisioning
-technical quality-connection establishment
-user information transfer
-connection release
-billing
-repair
-technical support
-technology in use
-operator services
-complaint handling

These parameters should all be evaluated on the basis of speed, accuracy, availability, reliability, security, simplicity, and flexibility. This list of service criteria can then be used to develop a performance index. Providers would then receive more or less support based on the performance index weighting on a nationwide basis.

As to the second principle, the FCC seeks comment on how to design policies to foster access to advanced telecommunications and information services for "all regions of the Nation". The FCC also seeks comment on which advanced telecommunications and information services should be provided, and how to provide access effectively to Americans in various geographic regions. The FCC also seeks comment on the cost of providing such access.

Comments:
LM does not provide comments on the definition of all essential telecommunications services. LM recommends that any list of "advanced telecommunications services" be included in a definition of essential services and that such a list include :

-stand alone service defined to include:
    -line quality capable of facsimile transmission;
    -line quality capable of data transmission;
    -connectivity with all public toll, local, wireline and wireless networks;
    -telecommunications relay service for voice-to-text and text-to-voice translation;
    -frame relay services;
    -ATM, directory listings;
    -access to interexchange services;
    -voice mail;
    -local (or 800 number supported) long distance
    -internet access
    -high speed transmission and broadband telecommunications services [e.g., ISDN PRI (23B&1D channels) operating over a T1 line at a minimum with data rate transmission capability of at least 128kbps]

In Michigan, the Michigan Information Network (MIN) Planning Committee issued the MIN Technical Committee Report in May 1995. The MIN will link each local and intermediate school district, community college, independent nonprofit college or university located in the state of Michigan, and state public university and each state, local or regional library on an equal basis by fiber optic, or coaxial cable, or other comparable system allowing a world-class statewide interactive video and data access and exchange system. The mission of the MIN is to ensure that

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Michigan has a network which integrates data, video, and voice. Such a network will allow users to connect as easily, efficiently, and cost effectively as possible to local, state, national and international networks.

As requirements for the MIN, the systems must integrate two way interactive capability including:
-Digital video allowing full motion video
-High speed burst data
-High quality voice
-High quality/high resolution video
-High speed multimedia resource data

The gateway switching options are:
-building three separate switch fabrics - one for data, voice and video;
-an integrated network like broadband integrated services/ asynchronous transmission mode (ATM); or
-some other narrower bandwidth integrated network different than ATM.

The report goes on to state that while there are a lot of standards in the market, the gateway switching network needs to be compatible with existing facilities and allow current voice dial network calls to be handled. The network needs to adopt the North American Dialing Standards. The gateway switching network also needs to allow Internet compatibility so the TCP/IP standards need to be transparent and handled by the network.

The MIN Report also discusses the need for a video standard. There is no clear standard that is universal. Numerous video standards need to be accommodated that already exist (compressed T-1, JPEG/MPEG and full motion video for traditional television).

Michigan also has a report titled Action Plan For Michigan Libraries dated November 21, 1994 and published by the Michigan Library Association. Key elements of the plan include infrastructure developments, public policy issues, cooperation/collaboration, competencies and funding.
The technical requirements identified in the Report include:

* LAN, ethernet, token ring, Integrated services digital network (ISDN) services (64-128 kbps)
* T1 line as basic services (1.44 Mbps leased service)
* Libraries will need more than 1.5 mbps including very high speed broadband services and video support like Asynchronous Transfer Mode (ATM) over the next 5 years

Publication of this report by the state's preeminent library professional association, coupled with activities undertaken by LM and other library organizations, speak to the readiness of the Michigan library community to take advantage of the potentials offered by an expanded definition of universal service.

The following requirements from the "Monterey Futures Group: White Paper on Telecommunications Requirements for the Virtual University - 1/1/96" should be incorporated into any recommendation:

-General Requirements
Security, authorization and authentication
Network management capabilities including performance audit
-Wide-area Communications

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Scaleable to serve all institutions of higher education
Supports integrated, real-time voice, video, and data
OC-12 to OC-48 connections into the national backbone for the R1's and R2's
Supports individual streams at OC-3
End-to-end quality of service
Supports multicasting
Connections to other backbones, both national and international

-Campus Communications
OC-12 bandwidths at the campus core
OC-3 connecting the core to distributed locations
End-to-end quality of service
Supports hundreds to thousands of 1.5 MB/s streams
Multicast capabilities
Symmetric connectivity

-Community Infrastructure
1.5 MB/s to 10 MB/s into the home
Goal of connectivity in the home being the same as on campus
Support 10Base T connectivity
Support multiple devices for each IP number
Future target of quality of service

-Workstations
10 MB/s to OC-3 performance to the desktop
Support end-to-end quality of service

-Software
Streaming protocol
Point-to-multipoint protocol

The third principle stresses that consumers in "rural, insular, and high-cost areas" and "low income consumers" should have access to "telecommunications and information services" that are "reasonably comparable to those services provided in urban areas." The FCC believes that its goal should be to ensure that consumers "in all regions of the Nation" and at all income levels, including low-income consumers, enjoy affordable access to the range of services to urban consumers generally. The FCC seeks comment on how best to incorporate that variation in its use of urban area service as a benchmark for comparative purposes.

Comments:
LM recommends that with the adoption of the list of "essential services" mentioned earlier, all local exchange service providers be required to make available to all customers at affordable prices all essential telecommunications services. By monitoring service quality and rewarding service improvements, the technology and services will be deployed. LM would also make reference to the MIN Report that was summarized earlier on in these comments.

The final principle listed in Section 254 of the new legislation authorizes the FCC and the Federal-State Joint Board to base universal service policies on such other principles as they deem necessary and appropriate for the protection of the public interest, convenience, and necessity and are consistent with the Act. The FCC invites comment on proposed additional principles relevant to the choice of services that should receive universal service support. The FCC seeks comment on whether they should ensure that the means of distributing universal service support should be competitively-neutral, and the least regulatory possible, consistent with the FCC's statutory obligations. The FCC specifically asks that commenters address whether and to what extent

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concerns for low income consumers or those in rural, insular, or high cost areas can or should be articulated as additional universal service principles pursuant to Section 254(b)(7) or should be considered in determining whether a particular service is "consistent with the public interest, convenience, and necessity under Section 254(c)(1)(D).

Comments:
LM recommends that the funds should be distributed on a competitively neutral basis based on easy to complete electronic uniform accounting information. All companies should be required to provide the same data in a public manner. The data should be electronically submitted, stored and made publicly available on the FCC web site.

Section 254(c)(1) of the Act directs that:

> the definition of the services that are supported by Federal universal service support mechanisms shall consider the extent to which such telecommunications services--
>
> > (A) are essential to education, public health, or public safety;
> > (B) have, through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers;
> > (C) are being deployed in public telecommunications networks by telecommunications carriers; and
> > (D) are consistent with the public interest, convenience, and necessity.

The FCC seeks comment on their interpretation that the Joint Board and the FCC may include services that do not necessarily meet all four criteria. The FCC also seeks comment on how they should evaluate whether a service or feature is "essential to education, public health, or public safety."

Comments:
LM recommends that an ongoing, federally funded, consumer advisory board be set up and be comprised of key members of the library, education, health care and public safety communities to determine the necessary services that are required.

The fourth principle dictates that the FCC must collect the revenues required to fund the universal support mechanisms in an equitable and non-discriminatory manner. The FCC seeks detailed comments on the implications of this directive with respect to the mechanisms that will be employed to collect universal service contributions later on in the notice. The FCC seeks comment on what standards we might use to help determine which, if any, "providers of telecommunications services" might be treated differently than others for "equitable" reasons.

Comments:
LM recommends that universal service funds should be collected equally from all telecommunications service providers as defined by the Act based on gross revenues. No exceptions should be made. The charges should be computed as a flat rate and billed on a monthly basis and the results by company published in electronic format by the FCC.

The FCC invites commenters to identify additional services that meet the statutory criteria of Section 254(c)(1) and therefore should be among the services that should receive universal service support. Commenters should discuss the extent to which each of the proposed services specifically meet those statutory criteria and further the principles established in Section 254(b). In

addition, given that the 1996 Act specifies that common carriers "shall . . . offer the services that are supported by Federal universal service support mechanisms" in order to be designated as eligible telecommunications carriers and thus eligible for universal service support, and that the Joint Statement stresses the importance of "opening all telecommunications markets to competition," the FCC seeks comment regarding the competitive effect of our proposed definition. Specifically, they ask whether providing universal service support for each proposed service could serve as a barrier to entry by new competitors or favor one technology over another, perhaps more efficient, technology.

Comments:
LM recommends adoption of our proposed list of advanced telecommunication services that should be included in any definition of essential telecommunications services. Providing support for specific services is technology neutral along with providing support for government, health care, schools and libraries. If the government, schools and libraries are not in the local calling area, then there should be calling plans that allow free or low cost flat rate access to these services.

The FCC seeks comment on how they should determine rate levels that would be "affordable" and "reasonably comparable" for services identified as requiring universal service support. The FCC asks commenters to identify the criteria or principles that should guide this determination, the methods they should use to evaluate the required rate levels, and whether there should be procedures to recalibrate these rate levels to reflect changes in inflation or other factors that may make such recalibration periodically necessary.

Comments:
LM recommends that the rates should be compared on the basis of scope, availability and quality of services provided. LM comments cite the long-standing difficulties schools and libraries have had in obtaining affordable, reliable and consistent telecommunications services. In a state like Michigan rates for connectivity, such as to the Internet for example, vary widely based upon service provider and geography. One service provider reports typical first year cost range differences based solely on geography as follows:

56K site (Typical)		high	low
	total	$5,463	$4,644

T1 Site (Typical)			
	total	$15,629	$10,949

The inability to procure advanced telecommunication services at affordable rates has been a significant stumbling block to the introduction of services based on such technologies. Libraries have been hindered in efforts to integrate such technologies by complex pricing mechanisms. Libraries have been assisted by their ability (in some cases) to aggregate demand among like organizations. LM recommends that any implementation plans allow for the continued use of buying cooperatives that not only aggregate demand, but also provide services often unavailable from traditional telecommunications vendors (such as training and support services).

The FCC also seeks comment in this connection regarding the statutory requirement "that any support mechanisms continued or created under new section 254 should be explicit," and the FCC requests the Joint Board to address this principle in its recommendation.

Comments:
LM recommends that the funding should be explicitly cost-based and non-discriminatory based on financial showing, with adequate detail to be auditable by state and FCC commission staffs.

The FCC also requests comment regarding a specific proxy model submitted to the FCC by several telecommunications carriers (Joint Sponsors).

Comments:
The proxy model should not be used at this time because it is unauditable, not explicit and does not correlate with actual need.

Comments:
The costs should be based on embedded or out of pocket costs. There should be no windfalls and a means to game this process should not be allowed. LM agrees with the FCC that any acceptable model be made technology neutral so that any appropriate telecommunications services can and should be provided.

Who Is Eligible For Support:
The FCC requests comment, and a corresponding recommendation from the Joint Board, regarding the need for any measures to ensure that support is used for its intended purpose. Similarly, they ask for comment regarding the need for additional measures to ensure that "telecommunications carrier[s]" do not "use services that are not competitive to subsidize services that are subject to competition." They also invite commenters to propose means to ensure that all eligible carriers -- and no ineligible carriers -- receive the appropriate amount of universal service support.

Comments:
LM recommends that in order to ensure that all eligible carriers receive the appropriate amount of support, actual cost data needs to be required, publicly reported and periodically audited.

Section 214(e)(1) requires an eligible carrier to offer "the services that are supported by Federal universal service support mechanisms under Section 254(c), either using its own facilities or a combination of its own facilities and resale of another carrier's services." Each eligible carrier must also "advertise the availability of such services" and the charges for those services "using media of general distribution." The FCC seeks comment regarding, and asks the Joint Board to recommend, standards for compliance with these requirements.

Comments:
Services must be published in tariffs and providers should not be allowed to withdraw service without prior approval and must advertise the availability of such services and corresponding rates and terms. This process should include system and service aggregators to be eligible for funding along with non-profit coalitions that serve as providers (i.e., MERIT, non-profit cooperatives and consortiums).

The Act also requires "eligible telecommunications carrier[s]" to "advertise the availability of such services and the charges therefor using media of general distribution." The Joint Explanatory Statement adds that "such services must be advertised generally throughout" the service area. To avoid future disputes, the FCC believes it may be useful to adopt guidelines defining the steps that would be sufficient to advertise the availability of, and charges for, services. They ask interested persons to comment on this approach and suggest appropriate guidelines.

Comments:
The appropriate guidelines to be used here would be to tariff or file this information in the public domain and to assure that it is easily available on both statewide and national levels. Additionally, telecommunications services providers should be required to file their rate schedules and service descriptions with the state department of education and state library agency.

Schools, Libraries, and Health Care Providers:
The FCC seeks comment on what services, in addition to the core services discussed in Section III, should be made available to schools, libraries and rural health care providers at a discount. They also seek comment on issues relating to the implementation of Section 254(h)(1) relating to support mechanisms that would enable eligible schools, libraries, and rural health care providers to receive both the core and advanced telecommunications services included among those eligible for universal service support.

Comments:
The standards needed to support the necessary services can be found in several existing documents and in addition to these services should include the cost of ongoing training and support provided by telecommunication providers to assist users in the use of the network. See our earlier reference to the Monterey standards; the MIN Technical Report; and the Action Plan for Michigan Libraries. LM stresses the need for services such as ongoing training and support (speed, accuracy, availability, reliability, security, simplicity, and flexibility) to be key factors in evaluating the success of a telecommunications services provider.

Section 254(h)(1)(B) of the Act states:

All telecommunications carriers serving a geographic area shall, upon bona fide request for any of its services that are within the definition of universal service under subsection (c)(3), provide such services to elementary schools, secondary schools, and libraries for educational purposes at rates less than the amounts charged for similar services to other parties. The discount shall be an amount that the Commission, with respect to interstate services, and the States, with respect to intrastate services, determine is appropriate and necessary to ensure affordable access to and use of such services by such entities.

Schools and Libraries:
The FCC proposes that the set of services designated for federal universal service support pursuant to Section 254(c)(1) and any other services designated for support pursuant to Section 254(c)(3) be made available to schools and libraries pursuant to the discount to be considered in this proceeding.

The FCC seeks comment and Joint Board recommendation on the additional services that carriers must make available to schools and libraries under Section 254(h)(1)(B). As the legislative history makes clear, Congress "expect[ed] the Commission and the Joint Board to take into account the particular needs of . . . K-12 [kindergarten to 12th grade] schools and libraries" in determining which services should be provided at a discount.

Comments:
LM recommends adoption of our list of telecommunication services mentioned earlier in these comments. LM recommends support funding through rate discounts to be made available for institutions offering telecommunications services to be used to provide any of the following services:
        (A) two-way interactive video services
        (B) high speed data transfer
        (C) toll call access to the Internet
        (D) direct Internet access

In addition, the FCC seeks comment on whether wireless technologies may provide a more efficient way of delivering any of the services designated for support. Finally, they also invite

comment on how their special definition of services for schools and libraries should reflect future "advances in telecommunications and information technologies and services." The FCC seeks comment and Joint Board recommendation on all of these issues.

Comments:
LM believes that many technologies, including wireless, may provide a more efficient way of delivering any of the services designated for support. Wireless loop and commercial mobile radio service, personal communications service and satellite may provide a more efficient way of providing these services and all should qualify for support. Further, support should not be hardware dependent and should be reviewed at regular intervals.

The FCC seeks comment and Joint Board recommendation on the factors to be used in formulating a discount methodology for universal service support for schools and libraries. The methodology could reflect whether the services used are tariffed or whether the charges are for capital investments or recurring expenses. The methodology could also be based on the incremental costs of providing services rather than retail prices. They also seek comment on the estimated costs associated with each discount methodology, and how each methodology would comport with the Act's principle of providing "specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service." Overall, the FCC seeks comment and a Joint Board recommendation on how the respective State and Federal discount methodologies can be harmonized to ensure that we fulfill Congress's goal that, throughout the nation, elementary and secondary schools, classrooms and libraries have access to advanced telecommunications services.

Comments:
LM recommends that the average cost to provide the service should be made publicly available and those rates for the service should be published. The discounted rate should need no justification other than a signed agreement between all parties attesting to the discount and quantity. The same terms, conditions and prices should also be made available to all other schools, libraries and healthcare institutions in the providers' service area so they too can take advantage of the services to advance the infrastructure. Selected discount methodologies should be distance insensitive. Additionally, LM recommends the following be considered:

     (i)   applicability of the four defining principles of universal service;
    (ii) utility of the service as determined from surveys of usage in schools, libraries, government and private industry; and
  (iii) degree to which cost is the primary barrier to service acquisition by schools and libraries.

The FCC invites comment on what steps they should take to ensure that this requirement is met. One possible approach would be to have the school or library provide the carrier with a written certification that the requested services will be used for educational purposes and will not be "sold, resold, or otherwise transferred by such user in consideration for money or any other thing of value." They invite comment and Joint Board recommendation on this proposal. To ensure that schools and libraries have a meaningful opportunity to benefit from the discounts, they propose to require each carrier to inform annually each school and library within its geographic serving area of the available discounts.

Comments:
LM recommends annual reporting of data and that this information should be filed electronically and be made available from the FCC's Internet web page. Any restrictions on use of telecommunications services on libraries and schools should not prohibit their participation in non-profit consortiums which aggregate demand and improve local service delivery.

The FCC proposes that any person qualified under State or local law to order telecommunications services for schools or libraries be deemed capable of making a "bona fide request" for service. They ask for comment and Joint Board recommendation on how to determine with as much precision as possible whether such a request is "bona fide."

Comments:
LM recommends that to be qualified as a bona fide request, the request must be signed by the parties and verified by a local, state or federal government agency.

Enhancing Access to Advanced Services for Schools, Libraries, and Health Care Providers:
The FCC seeks to identify those advanced telecommunications and information services that carriers should make available to all eligible health care providers, libraries and school classrooms to the extent technically feasible and economically reasonable. The FCC asks commenters to identify such services and to identify the features and functionalities required to give eligible health care providers, libraries and school classrooms access to those services. They also ask commenters to suggest competitively neutral rules that we could adopt "to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit elementary and secondary school classrooms, health care providers, and libraries." Specifically, they ask whether the "advanced telecommunications and information services" addressed in Section 254(h)(2) should be a broader, narrower, or identical group to those supported under Section 254(h)(1). Further, the FCC requests suggestions as to any additional measures, other than discounts and financial support, that would promote deployment of advanced services to school classrooms, libraries and health care providers.
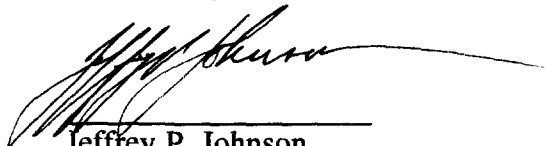
Comments:
LM recommends that technical usage information and examples of services that are being provided successfully should be published on the FCC web site. This should also show the rate discount comparisons for all schools, libraries and healthcare institutions. Monitoring reports of overall cost, services and availability should also be published. Specifically we reference the earlier section of this document detailing the type of telecommunications services required by libraries and schools.

Conclusion:
LM commends the FCC's efforts to redefine and develop a universal service support mechanism that will lead the nation into this new competitive era under the Telecommunications Reform Act of 1996. LM's comments have been provided throughout the body of these comments and cover too many diverse areas to be reiterated here. Concisely, LM would recommend adoption of a new universal service mechanism that embodies the principles covered in the body of these comments. LM would further propose that any mechanism be adopted on a transitional basis, allow for change over time, and allow for more active public comment than the current short timeline allows.

Respectfully submitted,

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Date: _4 April 1996_

Initial Report

ACTION PLAN FOR MICHIGAN LIBRARIES

Recommendations from the
Michigan Library Association Task Force
on the National Information Infrastructure

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MICHIGAN LIBRARY ASSOCIATION
NII PROJECT FOCUS

CITIZEN ACCESS: Context and Significance of Recommendations

Although much of this action plan focuses on specific recommendations relating to libraries, it is vital to recognize the importance of the recommendations for the general population in the State of Michigan. As the country engages in discussion of how to develop a national information infrastructure and a "national information superhighway," it is hard to imagine a more accessible and available "on-ramp" to that highway than the local library. Libraries exist in communities, in schools, on college campuses and in businesses large and small. The library's tradition of promoting access to information resources and assisting citizens in navigating through the complexities of information presentation is long-standing and adapts well to the new environment. As the State of Michigan wrestles with the issues of exactly what the Michigan Information Network (MIN) should be, libraries stand as an important access point for Michigan's citizens. This action plan for Michigan libraries is also an action plan for Michigan's citizens, and the library community will look for collaborative ways to pursue these action steps in ways that will benefit all ages and those from all walks of life across the state.

NII PROJECT GOAL

GOAL: Adopt and Carry out a Plan of Action to:

1. Enable every library of every type in Michigan to provide significant electronic network-based information services to their users by the year 2000

2. Participate in shaping both the state and national discussions regarding development of infrastructure

3. Define and offer resolution of public policy decisions including such areas as public/universal access to the NII, copyright and intellectual property, privacy issues, and access to government information

KEY ELEMENTS OF THE ACTION PLAN

Key elements of the Action Plan to meet the three goal areas identified are the following:

- **Infrastructure Developments**
  with particular attention paid to Michigan planning and funding of a
  coordinated and interoperable communications network and structure

- **Public Policy Issues**
  Access will be provided both by physical/communications infrastructure
  and by the public policy decisions made. The NII must be available,
  accessible, and affordable.

- **Cooperation/collaboration**
  at the "community" level. The current thrust of the NII is toward funding
  and development of community information systems. Libraries of all
  types must identify their own "community" and appropriate partnerships
  in order to position themselves at the center of these systems.

- **Competencies**
  Steps must be taken to ensure that staff in libraries educated and trained
  to build, operate, and maintain these systems. Systematic training focused
  on a clear definition of the needed skills and competencies must be
  planned. Staff must also prepare to train users for self sufficiency.

- **Funding**
  Funding is critical to the success of any new initiative, particularly one as
  complex as the NII. In order to be equal partners in the NII, libraries are
  committed to the identification of new sources of funding, as well as the
  reallocation of existing resources, required to make our common vision a
  reality.

ACTION PLAN FOR MICHIGAN'S LIBRARIES

PREFACE

In September, 1993, the Clinton Administration issued its NATIONAL INFORMATION IN-FRASTRUCTURE: AGENDA FOR ACTION signaling the beginning of a new era of information accessibility. A few paragraphs from the Executive Summary of that document provide the context for this document.

"All Americans have a stake in the construction of an advanced National Information Infrastructure (NII), a seamless web of communications networks, computers, databases, and consumer electronics that will put vast amounts of information at users' fingertips. Development of the NII can help unleash an information revolution that will change forever the way people live, work, and interact with each other:

- People could live almost anywhere they wanted, without foregoing opportunities for useful and fulfilling employment, by "telecommuting" to their offices through an electronic highway;

- The best schools, teachers, and courses would be available to all students, without regard to geography, distance, resources, or disability;

- Services that improve America's health care system and respond to other important social needs could be available on-line, without waiting in line, when and where you needed them.

The Administration will seek to ensure that Federal agencies, in concert with state and local governments, use the NII to expand the information available to the public, ensuring that the immense reservoir of government information is available to the public easily and equitably.

The benefits of the NII for the nation are immense. An advanced information infra-structure will enable U.S. firms to compete and win in the global economy, generating good jobs for the American people and economic growth for the nation. As importantly, the NII can transform the lives of the American people — ameliorating the constraints of geography, disability, and economic status — giving all Americans a fair opportunity to go as far as their talents and ambitions will take them."

The National Information Infrastructure, according to the Center for Civic Networking, "can revitalize the American economy and civic culture." Moreover, according to A NATIONAL STRATEGY FOR CIVIC NETWORKING: A VISION OF CHANGE, prepared by CCN, "The Ad-ministration, Congress, State legislatures, and municipal officials have a solemn obligation to fully understand the civic promise of the National Information Infrastructure, and to swiftly reframe the debate which is currently being driven by the communications and media indus-tries."

In order to bring the benefits of the NII to Michigan communities, librarians will need to show leadership and work collaboratively with elected officials, state and local public and private agencies to build on the existing information infrastructure in the state. In addition to building infrastructure, librarians will need to develop mechanisms to educate citizens in every community to the benefits of creating an information infrastructure and to train them in gaining access to and using digital knowledge and information.

The Work Has Begun to Define the Michigan Vision

Michigan librarians have already begun to identify their priorities and focus for bringing the NII into Michigan and its libraries! The Michigan Library Association and the School of Information and Library Studies at the University of Michigan jointly sponsored a satellite town meeting on April 24, 1994 to "jump start" the process. Themes from the town meeting as identified by the Task Force appear as Attachment A of thisreport. At the "town meeting" Vice President Al Gore stated via taped message the plans and challenges at the federal level including:

- Proposing that the telecommunications policy be reformed and the telecommunications industry challenged to ensure that every classroom, hospital, and library be connected to the NII within 5 years

- Stating that his 5 Principles for the NII are universal service, open access, competition, private investment, and flexible regulations

- Asserting the importance of privacy on the NII and also of diverse and freely available views and information above

Michigan librarians, joining their colleagues around the country, are committed to a National Information Infrastructure development plan which identifies the technical, political, social and educational elements required to ensure statewide and national visions are achieved. The MLA Task Force has used a working definition of the NII that includes both the content (i.e. the information) in the emerging national structure and the technical structure itself.

Concurrent national, state and local initiatives must be coordinated at all levels if technological, economic and policy goals are to be achieved. Michigan librarians believe such coordination of effort should be focused on issues of most interest to the potential users of the NII. The work of the Task Force has therefore centered on the following key themes/elements.

> **RECOMMENDATION:** MLA adopt a statewide definition for all libraries of all types regarding the characteristics of the library environment/infrastructure for connecting to the NII as follows:
>
> - Create a distributed computing environment for libraries and their users, capable of linking to all types of information (graphics, audio, video) in an integrated manner similar to that offered today by the World Wide Web and Mosaic.
>
> - Develop capability to both access and provide information to the Internet
>
> - Make electronic mail communication available for library staff

NOTE: In TODAY's network environment and particularly with the current connections being supported through the AMERITECH rebate funds, libraries may get started into the NII with 56K lines and connections. Some may even initially connect through dial-up connections. However, it should be recognized that this is a temporary and interim way to participate in what is intended in the Michigan and National Information Infrastructures. In general, there needs to be recognition that timely transmission of graphic images and interactive applications will require bandwidth beyond current configurations for most libraries.

The networking needs of libraries include, but are not limited to:

- multiple points of access within a library for staff use

- multiple points of access within a library for direct use by the public

- bandwidth sufficient to support the delivery of large volumes of information in multiple formats

- bandwidth sufficient for libraries to participate in the NII as information providers as well as information seekers

While the connection speeds will vary from library to library, only the smallest of libraries will be able to rely on the public dial-in network as its sole point of access to the network. All libraries will need to establish at least a 56K connection either directly or through a wide area network, within the next few years. And, all libraries should plan to participate in the network described at the bottom of the chart that follows by the year 2000.

MLA will need to recognize a **Technology Path** that will offer a continuum of development as libraries become accustomed to more advanced technology. The Technology Path might look like the next pages for the development of this broad-based library service.